

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Applicant : George C. Crane  
Application No.: 09/736,070 Confirmation No.: 7720  
Filed : December 13, 2000  
For : APPARATUS AND METHOD FOR  
ASSESSING MARKET CONDITIONS  
Group Art Unit : 2164  
Examiner : Vincent A. Millin

New York, New York 10020  
June 1, 2001

Hon. Commissioner for Patents  
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56 and 1.97, applicant hereby makes the following patents and publications of record in the above-identified patent application:

Kosaka et al. U.S. Patent 5,161,103 (November 3, 1992)  
Kagami et al. U.S. Patent 5,237,496 (August 17, 1993)  
Fields et al. U.S. Patent 5,299,115 (March 29, 1994)  
Schnitta U.S. Patent 5,402,520 (March 28, 1995)  
Negishi U.S. Patent 5,444,819 (August 22, 1995)  
Fox et al. U.S. Patent 5,521,813 (May 28, 1996)  
Nozaki et al. U.S. Patent 5,563,983 (October 8, 1996)  
Mizuno U.S. Patent 5,577,166 (November 19, 1996)  
Agrawal et al. U.S. Patent 5,615,341 (March 25, 1997)  
Bonnet U.S. Patent 5,622,428 (April 22, 1997)  
Lee et al. U.S. Patent 5,712,985 (January 27, 1998)  
Lawrence et al. U.S. Patent 5,761,386 (June 2, 1998)  
Bennett U.S. Patent 5,761,441 (June 2, 1998)

Barr et al. U.S. Patent 5,761,442 (June 2, 1998)  
Pincus et al. U.S. Patent 5,769,793 (June 23, 1998)  
Cwenar U.S. Patent 5,893,079 (April 6, 1999)  
Nevo et al. U.S. Patent 5,946,666 (August 31, 1999)  
Takriti et al. U.S. Patent 5,974,403 (October 26, 1999)  
O'Shaughnessy U.S. Patent 5,978,778 (November 2, 1999)  
Michaud et al. U.S. Patent 6,003,018 (December 14, 1999)  
Black et al. U.S. Patent 6,012,042 (January 4, 2000)  
Fried U.S. Patent 6,035,286 (March 7, 2000)  
Rothstein U.S. Patent 6,058,369 (May 2, 2000)  
Church et al. U.S. Patent 6,058,370 (May 2, 2000)  
Makivic U.S. Patent 6,061,662 (May 9, 2000)  
Rebane U.S. Patent 6,078,904 (June 20, 2000)  
White, Jr. U.S. Patent 6,088,676 (July 11, 2000)

Bachelier, L., "Theory of Speculation" (1900), translated in Cootner, P.H., ed., The Random Character of Stock Market Prices, pp. 17-78 (see, esp., n.7, p. 77) (Boness, A.J., translator) (M.I.T. Press, 1964)

Cavanagh, L.D., "Real-World Option Pricing," Technical Analysis of Stocks & Commodities, pp. 94-97 (May 1966)

Goodstein, D.L., et al., Feynman's Lost Lecture: The Motion of Planets Around the Sun, pp. 145-70, 179-82 (Cal. Inst. of Tech., 1996)

James, C., "Problems With Black Scholes: An Intuitive Look," The GFA Analyst, Graduate Finance Association, University of Texas at Austin (March 1996)

Parabon Computation, Inc., "The Frontier" Application Programming Interface, Version 0.5.0 (October 10, 2000)

Stachel, J., ed., Einstein's Miraculous Year: Five Papers That Changed the Face of Physics, pp. 77, 85-98 (Princeton University Press, 1998), reproducing Einstein, A., "On the Motion of Small Particles Suspended in Liquids at Rest Required by the Molecular-Kinetic Theory of Heat" (1905)

Stewart, I., "Putting randomness in order," New Scientist (May 10, 1997)

Stix, G., "A Calculus of Risk," Scientific American (May 1998)

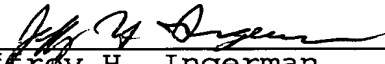
Woolard, E.W., "Celestial Mechanics," Fundamental  
Formulas of Physics, Menzel, D.H., ed., vol. 2,  
pp. 680-96 (1960)

Copies of the aforementioned patents and publications, which are listed on the accompanying Form PTO-1449 (submitted in duplicate), are enclosed herewith.

It is respectfully requested that these patents and publications be (1) fully considered by the Patent and Trademark Office during examination of this application; and (2) printed on any patent which may issue on this application. Applicant requests that a copy of Form PTO-1449, as considered and initialed by the Examiner, be returned with the next communication.

An early and favorable action is respectfully requested.

Respectfully submitted,

  
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<b>FORM PTO-1449</b> <b>U.S. DEPARTMENT OF COMMERCE</b> <b>PATENT AND TRADEMARK OFFICE</b>  <b>INFORMATION DISCLOSURE</b> <b>STATEMENT BY APPLICANT</b>	<b>ATTY. DOCKET NO.</b> CAP-2	<b>APPLN. NO.</b> 09/736,070
	<b>APPLICANT</b> George C. Crane	
	<b>FILING DATE</b> December 13, 2000	<b>GROUP ART UNIT</b> 2164

### U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,161,103	11/03/1992	Kosaka et al.	364	408	
	5,237,496	08/17/1993	Kagami et a.	364	401	
	5,299,115	03/29/1994	Fields et al.	364	401	
	5,402,520	03/28/1995	Schnitta	395	22	
	5,444,819	08/22/1995	Negishi	395	22	
	5,521,813	05/28/1996	Fox et al.	364	401	
	5,563,983	10/08/1996	Nozaki et al.	395	23	
	5,577,166	11/19/1996	Mizuno	395	22	
	5,615,341	03/25/1997	Agrawal et al.	395	210	
	5,622,428	04/22/1997	Bonnet	128	630	
	5,712,985	01/27/1998	Lee et al.	395	207	
	5,761,386	06/02/1998	Lawrence et al.	395	23	
	5,761,441	06/02/1998	Bennett	395	235	
	5,761,442	06/02/1998	Barr et al.	395	236	
	5,769,793	06/23/1998	Pincus et al.	600	515	
	5,893,079	04/06/1999	Cwenar	705	36	
	5,946,666	08/31/1999	Nevo et al.	705	36	
	5,974,403	10/26/1999	Takriti et al.	705	412	
	5,978,778	11/2/1999	O'Shaughnessy	705	36	
	6,003,018	12/14/1999	Michaud et al.	705	36	
	6,012,042	01/04/2000	Black et al.	705	36	
	6,035,286	03/07/2000	Fried	705	36	
	6,058,369	05/02/2000	Rothstein	705	10	
	6,058,370	05/02/2000	Church et al.	705	10	
	6,061,662	05/09/2000	Makivic	705	36	
	6,078,904	06/20/2000	Rebane	705	36	
	6,088,676	07/11/2000	White, Jr.	705	1	

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. CAP-2	APPLN. NO. 09/736,070
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## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIAL	
	Bachelier, L., "Theory of Speculation" (1900), translated in Cootner, P.H., ed., <u>The Random Character of Stock Market Prices</u> , pp. 17-78 (see, esp., n.7, p. 77) (Boness, A.J., translator) (M.I.T. Press, 1964)
	Cavanagh, L.D., "Real-World Option Pricing," <u>Technical Analysis of Stocks &amp; Commodities</u> , pp. 94-97 (May 1966)
	Goodstein, D.L., et al., <u>Feynman's Lost Lecture: The Motion of Planets Around the Sun</u> , pp. 145-70, 179-82 (Cal. Inst. of Tech., 1996)
	James, C., "Problems With Black Scholes: An Intuitive Look," <u>The GFA Analyst</u> , Graduate Finance Association, University of Texas at Austin (March 1996)
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	Stewart, I., "Putting randomness in order," <u>New Scientist</u> (May 10, 1997)
	Stix, G., "A Calculus of Risk," <u>Scientific American</u> (May 1998)
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